



Publications of the U.S. Army Engineer Research and Development Center

Appendix A: January 2016-December 2016

Compiled by James A. Dolan

May 2017

The U.S. Army Engineer Research and Development Center (ERDC) solves the nation's toughest engineering and environmental challenges. ERDC develops innovative solutions in civil and military engineering, geospatial sciences, water resources, and environmental sciences for the Army, the Department of Defense, civilian agencies, and our nation's public good. Find out more at www.erdc.usace.army.mil.

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Publications of the U.S. Army Engineer Research and Development Center

Appendix A: January 2016-December 2016

Compiled by James A. Dolan

Information Technology Laboratory U.S. Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199

Final report

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Abstract

Publications issued January through December 2016 by the U.S. Army Engineer Research and Development Center (ERDC) are listed. The publications are grouped according to the technical laboratories or technical program for which they were prepared. Procedures for obtaining ERDC reports are included in the Preface.

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Preface

The purpose of this report is to provide an annual update of existing literature produced by the U.S. Army Engineer Research and Development Center (ERDC). Publications issued January through December 2016 are listed herein. The publications are grouped according to the technical laboratories and/or technical programs for which they were prepared.

ERDC publications containing the statement "Approved for Public Release; Distribution is Unlimited" are available electronically from the ERDC Library's digital repository at https://erdc-library.erdc.dren.mil/. A footnote by the report number denotes a limited distribution report. Limited distribution reports are available to qualified agencies from the Defense Technical Information Center (DTIC) at www.dtic.mil. For ordering purposes and when available, Accession Document (AD) numbers have been supplied.

When electronic access is not an option, library-to-library loaning is available through Online Computer Library Center (OCLC). The ERDC Library's OCLC symbol is AERDC. Requestors should contact their local library for interlibrary loans. The ERDC Library does not loan directly to individuals. The loaning of limited distribution reports is at the discretion of the ERDC Library and only if the requestor meets the qualifications of the report's limited distribution statement.

This report was compiled by the U.S. Army Engineer Research and Development Center, Information Technology Laboratory (ERDC-ITL), under the general supervision of Ms. Susan D. Kitchens, Chief, Information Science and Knowledge Management Branch, ITL; Mr. Ken Pathak, Chief, Software Engineering and Informatics Division, ITL; Ms. Patti S. Duett, Deputy Director, ITL; and Dr. Reed L. Mosher, Director, ITL.

At the time of publication, COL Bryan S. Green was the Commander of ERDC. Dr. David W. Pittman was the Director.

1 Engineer Research and Development Center (ERDC)

Special reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC SR-16-1	Feb 2016	Weathering of Nanomaterials to Study Potential for Release: Scientific Operating Procedure SOP-R-1, by K. Torres-Cancel, R.D. Moser, and A.R. Poda	
ERDC SR-16-2	Apr 2016	Abrasion Testing of Products Containing Nanomaterials, SOP-R-2: Scientific Operating Procedure Series: Release (R), by M.A. Ramsey, J.A. Brame, A.R. Poda, M. Cuddy, and R.D. Moser	AD1007546
¹ERDC SR-16-3	Sep 2016	Machine Classification of Text and the Detection of Dominant Political Narratives, by D.A. Krooks, S.R. Sovine, E.C. Karakus, T.K. Perkins, and C.M. Armstrong	AD1018509

Technical Notes

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC TN-16-1	Apr 2016	Identification of Insect-Plant Pollination Networks for a Midwest Installation: Fort McCoy, WI, by I.E. MacAllister, J.H. Sperry, and P. Bailey	AD1007540

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC TR-15-5 Rpt. 2	Nov 2016	Persistent Monitoring of Urban Infrasound Phenomenology. Report 2: Investigation of Structural Infrasound Signals in an Urban Environment, by S.L. McComas, M.E. Pace, H. Diaz- Alvarez, C. Simpson, and M.H. McKenna	
ERDC TR-16-1	Jan 2016	Effects of Climate Change and Urban Development on Army Training Capabilities: Firing Ranges and Maneuver Areas, by M.E. Swearingen, A. Fulton, W. Wall, R. Bakaitis, and J.W. Weatherly	

¹ Limited distribution; see Preface.

ERDC TR-16-2	Mar 2016	Ocean Dredged Material Disposal Site (ODMDS) Authorization and Short-Term FATE (STFATE) Model Analysis: 2014 - 2015 Working Group Findings Report, by J.D. Ousley, P.R. Schroeder, S. Bailey, M.J. Lang, and A. Kennedy	AD1005460
ERDC TR-16-3	Apr 2016	Understanding the Effects of Infrastructure Changes on Subpopulations: Survey of Current Methods, Models, and Tools, by N.R. Myers, A.M. Rhodes, J.M. Roningen, T.A. Bozada, L.A. Whalley, S.I. Enscore, T.M. Hurt, D.A. Krooks, G.K. Al-Chaar, G.W. Calfas, and D.A. Morrison	AD1010891
ERDC TR-16-4	May 2016	Impact of Incremental Sampling Methodology (ISM) on Metals Bioavailability, by J. Clausen, B. Swope, A. Bednar, L. Levitt, T. Cary, T. Georgian, M. Colvin, K. Sorensen, N. Parker, S. Beal, D. Rosado, M. Catt, K. Armstrong, and C. Hayes	ADA631950
ERDC TR-16-5	Jun 2016	Evaluation of Rhizobium tropici-derived Biopolymer for Erosion Control of Protective Berms. Field Study: lowa Army Ammunition Plant, by S. Larson, G. Nijak, Jr., M. Corcoran, E. Lord, and C. Nestler	AD1011606
¹ ERDC TR-16-7	Jul 2016	Seismic Testing on Fiber Optic Seismic Sensor Test Bed at Field Research Facility, by R.D. Costley, M.W. Parker, S.A. Ketcham, K.K. Hathaway, G. Galan- Comas, T.W. Milburn, E.W. Smith, H.M. Wadman, J.E. Simms, W.R. Folks, and C.K. Kirkendall	
ERDC TR-16-8	Jul 2016	Transient Seepage Analyses in Levee Engineering Practice, by F.T. Tracy, T.L. Brandon, and M.K. Corcoran	AD1012946
¹ ERDC TR-16-9	Jul 2016	An Introduction to the CALDERA Forensic Crater Analysis Program, by J.Q. Ehrgott, Jr., D.D. Rickman, J.E. Payne, W.S. Myers, C.D. Thomas, M.D. Adley, J.E. Windham, E.S. Berney IV, T.C. Pratt, D.P. Danko, R.L. Talbott, Jr., C.W. Crowder, and T.A. Waddell	
ERDC TR-16-10	Jul 2016	Application of Bridge Pier Scour Equations for Large Woody Vegetation, by D.R. Cooper, C.D. Little, Jr., J. Cohen, B. Yuill, J. Wibowo, B. Robbins, R. Reed, M.K. Corcoran, and K.S. Holden	AD1013553
ERDC TR-16-11	Jul 2016	Assessing Socioeconomic Impacts of Cascading Infrastructure Disruptions in a Dynamic Human-Infrastructure Network, by L. Lu, X. Wang, Z. Wang, Y. Ouyang, J. Roningen, S. Tweddale, P. Edwards, and N. Myers	AD1012947

¹ Limited distribution; see Preface.

¹ ERDC TR-16-12	Aug 2016	Experimental Sampling Accuracy Results for Non- Explosive Wind Tunnel Tests Using Dry Particulate. Phase 1, Task 1 Test Series: Tests 16-24 and Cal-1, by P.W. Graham, M.F. Cuddy, A.R. Poda, and G.E. Albritton	
ERDC TR-16-13	Aug 2013	Equipment and Protocols for Quasi-Static and Dynamic Tests of Very-High-Strength Concrete (VHSC) and High-Strength High-Ductility Concrete (HSHDC), by B.A. Williams, R.D. Moser, W.F. Heard, C.F. Johnson, D.A. Scott, T.R. Slawson, H.L. Blake, R.N. Boone, and T.D. White	AD1013579
ERDC TR-16-14	Sep 2016	Demonstration of Reactive Vitreous Coatings on Reinforcement Steel to Prevent Corrosion and Concrete Failure: Final Report on Project F08- AR01, by S. Morefield, C.A. Weiss Jr., P.G. Malone, and V. Martinez	
ERDC TR-16-15	Sep 2016	Landscape Evolution of the Oil Spill Mitigation Sand Berm in the Chandeleur Islands, Louisiana, by G.M. Suir, W.R. Jones, A.L. Garber, and J.Z. Gailani	
ERDC TR-16-16	Nov 2016	Refinement of Foam Backfill Technology for Expedient Airfield Damage Repair. Phase I: Laboratory Evaluation of Foam Materials, by L. Gurtowski, M. Mejías-Santiago, C. Griggs, J. Johnson, B. Ruiz-Cruz, and D. Felt	
ERDC TR-16-17	Nov 2016	Organic Waste Diversion Guidance for U.S. Army Installations, by C. Fey, C. Chadderton, G. Rodriguez, D. Gilbert, A. Urban, and C.M. Foran	

2 Coastal and Hydraulics Laboratory (CHL)

Letter reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
¹ ERDC/CHL LR-16-1	Feb 2016	Lower Mississippi River HEC-RAS Sedimentation Model Development, by R.E. Heath and M. Ramos-Villanueva	
¹ERDC/CHL LR-16-2	Feb 2016	Numerical Study of Springville Dam Ecosystem Restoration Project, by W. Echevarria	
¹ ERDC/CHL LR-16-3	Feb 2016	Herbert Hoover Dike (HHD) Flow Model: A Project Report Prepared for the Jacksonville District, U.S. Army Corps of Engineers, by H.P. Cheng, R.E. Pickett, K.D. Winters, and S.M. England	
¹ ERDC/CHL LR-16-4	Feb 2016	Herbert Hoover Dike (HHD) Transport Model: A Project Report Prepared for the Jacksonville District, U.S. Army Corps of Engineers, by S.M. England, T.M. North, And H.P. Cheng	
¹ ERDC/CHL LR-16-6	Jun 2016	CHL Modeling Strategy: Software Release Procedures, by C. Kees, C. Berger, C. Downer, M. Farthing, H. Li, C. Massey, G. Savant, and J. Smith	
ERDC/CHL LR-16-7	Jul 2016	General Model Study of Scour at New Proposed Pier Extensions and West Guide Wall, by G.L. Bell, J.A. Sharp, T.O. McAlpin, and R.E. Heath	
¹ ERDC/CHL LR-16-8	Nov 2016	SWAT Model Development for Independence Dam on the Maumee River, by T.A. Dahl	
¹ ERDC/CHL LR-16-9	Nov 2016	Two-Dimensional Numerical Model Study of Santa Ana River Velocity Range of Existing and Proposed Conditions, by G.L. Bell, T.O. McAlpin, and J.A. Sharp	
¹ ERDC/CHL LR-16-10	Dec 2016	Estimating Sea State in Data Deficient Environments Using Joint Military Doctrine, by B.H. Hargis, D. Loney, A. Byrd, and T. Hesser	

¹ Limited distribution; see Preface.

¹ ERDC/CHL LR-16-11	Dec 2016	Herbert Hoover Dike (HHD) Connate Water Study: A Project Report Prepared for the Jacksonville District, U.S. Army Corps of Engineers, by H.P. Cheng, B.P. Donnell, E.V. Edris, S.M. England, R. Weeks, M.D. Shafer, and J.R. Davis
¹ERDC/CHL LR-16-12	Dec 2016	Herbert Hoover Dike (HHD) Connate Water Pilot Study: Reach 1B Model Claibration. A Project Report Prepared for the Jacksonville District, U.S. Army Corps of Engineers, by R.E. Pickett, S.M. England, H.P. Cheng, and E.V. Edris
¹ ERDC/CHL LR-16-13	Dec 2016	White Sands Missile Range 40-Year Water Development Plan, by J.W. Lewis

Special reports

Report Number	<u>Date</u>	<u>Title</u>	
ERDC/CHL SR-16-1	Mar 2016	Combined Wave and Current Bottom Boundary Layers: A Review, by R. Styles and D. Bryant	AD1005459
ERDC/CHL SR-16-2	Jul 2016	Data Integration Framework Data Management Plan: Remote Sensing Dataset, by N.J. Spore and K.L. Brodie	
ERDC/CHL SR-16-3	Jul 2016	Ice Harbor Spillway Dissolved Gas Field Studies: Before and After Spillway Deflectors, by M.L. Schneider and S.C. Wilhelms	AD1013510
ERDC/CHL SR-16-4	Aug 2016	Field Research Facility Data Integration Framework Data Management Plan: Survey Lines Dataset, by M.F. Forte and R. Dopsovic	AD1013575
ERDC/CHL SR-16-5	Dec 2016	Bed-Load Dispersion: A Literature Review, by J.W. Lewis, A. Sánchez, S. Gibson, T. Dahl, and I. Floyd	

¹ Limited distribution; see Preface.

Technical notes

Section I - Waves and coastal flooding

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-I-88	Apr 2016	Capabilities of the Large-Scale Sediment Transport Facility, by E.R. Smith, D.B. Bryant, and A.M. Priestas	AD1007544
ERDC/CHL CHETN-I-89	May 2016	Overview and Modernization of the 1.5 and 3 m Flumes, by D.B. Bryant, D.L. Ward, and A.M. Priestas	
ERDC/CHL CHETN-I-90	Jun 2016	Coastal Modeling System: Dredging Module, by C. Reed and A. Sanchez	AD1011630
ERDC/CHL CHETN-I-91	Jul 2016	Evaluation Statistics Computed for the Wave Information Studies (WIS), by M.A. Bryant, T.J. Hesser, and R.E. Jensen	
ERDC/CHL CHETN-I-92	Oct 2016	Importance of Antecedent Beach and Surf- Zone Morphology to Wave Runup Predictions, by K.L. Brodie	

Section IV – Inlets and estuary channels

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-IV-107	Apr 2016	Analytical Model of Inlet Growth and Equilibrium Cross-Sectional Area, by R. Styles	AD1007542
ERDC/CHL CHETN-IV-108	Apr 2016	Evaluating Sediment Mobility for Siting Nearshore Berms, by B.C. McFall, S.J. Smith, C.E. Pollock, J. Rosati III, and K.E. Brutsché	AD1007541
ERDC/CHL CHETN-IV-109	Jun 2016	Applications of Dredging and Beach Fills in GenCade, by A.E. Frey	AD1013240

Section VI - Miscellaneous coastal subjects

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-VI-45	Mar 2016	Calculating Depth of Closure Using WIS Hindcast Data, by K.E. Brutsché, J. Rosati III, C.E. Pollock, and B.C. McFall	AD1006484

Section VII - River engineering and sedimentation

Report NumberDateTitleAD NumberERDC/CHL CHETN-VII-15Aug 2016Scale Factor Study for 1:30 Local Scour
Model, by J.A. Sharp, R.E. Heath, H.E. Park,
and T.O. McAlpinAD1013557

Section VIII - Flood management

Report Number

ERDC/CHL CHETN-VIII-8 Feb 2016 Development of Predictive Relationships for Flood Hazard Assessments in Ungaged Basins, by N.R. Pradhan, A. Byrd, M.R. Jourdan, and J. Ellis

Section IX - Navigation

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-IX-42	Jul 2016	Development of a New Nondestructive Inspection Strategy for Corroded Multistrand Anchor Cables, by R. Haskins, J. Evans, and R. Ebeling	AD1013238
ERDC/CHL CHETN-IX-43	Sep 2016	Use of Coatings on Hydraulic Steel Structures: Part 1–Overview and Field Survey, by M.K. McInerney, C.P. Marsh, V.F. Hock, A.D. Beitelman, A. Skaja, and T.A. Carlson	AD1017931
ERDC/CHL CHETN-IX-44	Sep 2016	Use of Coatings on Hydraulic Steel Structures: Part 2–Supplemental Information, by M.K. McInerney, C.P. Marsh, V.F. Hock, A.D. Beitelman, A. Skaja, and T.A. Carlson	AD1017932

Section X - Engineering Hydrology

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-X-1	Feb 2016	A Bayesian Analysis of the Flood Frequency Hydrology Concept, by B.E. Skahill, A. Viglione, and A. Byrd	AD1002919
ERDC/CHL CHETN-X-2	Mar 2016	Bayesian Inference of Nonstationary Precipitation Intensity-Duration-Frequency Curves for Infrastructure Design, by B.E. Skahill, A. AghaKouchak, L. Cheng, A. Byrd, and J. Kanney	

AD1013237

Soil Texture Classifications for Simulating Hydrologic Processes, by W.C. LaHatte and

N.R. Pradhan

Section XIV - Regional sediment management

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL CHETN-XIV-40	Feb 2016	Saco Bay, Maine: Sediment Budget for Late Twentieth Century to Present, by A. Morang	AD1005461
ERDC/CHL CHETN-XIV-42	May 2016	Regional CMS Modeling; Southwest Florida Gulf Coast, by K.R. Legault and T.M. Beck	AD1008677
ERDC/CHL CHETN-XIV-46	Feb 2016	Flocculation and Settling Velocity Estimates for Reservoir Sedimentation Analysis, by I.E. Floyd, S.J. Smith, S.H. Scott, and G.L. Brown	AD1002918
ERDC/CHL CHETN-XIV-47	Feb 2016	Potential RSM Projects; West Maui Region, Maui, Hawaii, by T.D. Smith	AD1002915
ERDC/CHL CHETN-XIV-48	Jun 2016	The Atlantic Coast of Maryland, Sediment Budget Update: Tier 2, Assateague Island and Ocean City Inlet, by E.R. Smith, J.C. Reed, and I.L. Delwiche	AD1011507
ERDC/CHL CHETN-XIV-49	Jun 2016	Regional Sediment Management (RSM) Assessment of Longboat Pass, Manatee County, FL, by K.R. Legault	AD1011629
ERDC/CHL CHETN-XIV-50	Jun 2016	Environmental Benefits of Restoring Sediment Continuity to the Kansas River, by J. Shelley, M. Boyer, J. Granet, and A. Williams	AD1011945
ERDC/CHL CHETN-XIV-51	Jun 2016	Passage Key Inlet, Florida; CMS Modeling and Borrow Site Impact Analysis, by K.R. Legault and S. Rayaprolu	AD1011846
ERDC/CHL CHETN-XIV-52	Jul 2016	Applying 1D Sediment Models to Reservoir Flushing Studies: Measuring, Monitoring, and Modeling the Spencer Dam Sediment Flush with HEC-RAS, by P. Boyd and S. Gibson	AD1012497
ERDC/CHL CHETN-XIV-53	Jul 2016	Identification of Challenges and Opportunities for Regional Sediment Management (RSM) and Engineering With Nature (EWN) within Inland USACE Districts, by K. Touzinsky, P. Boyd, and J. Shelley	AD1012496
ERDC/CHL CHETN-XIV-54	Nov 2016	Beach and Morphology Change Using Lidar, by K.R. Legault	

ERDC/CHL CHETN-XIV-55	Dec 2016	Generation of a Sediment Rating and Load Curve Demonstrated at the Mackinaw River Confluence, by J.A. Sharp and R.E. Heath	AD1023423
ERDC/CHL CHETN-XIV-56	Dec 2016	Gaillard Island Bio-degradable Geotube Test Project, Mobile Bay, Alabama, by N.D. Lovelace	

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CHL TR-16-1	Jan 2016	Montgomery Point Lock and Dam, White River, Arkansas, by A. Hammack, M. Winkler, and H. Park	AD1001857
ERDC/CHL TR-16-2	Feb 2016	Navigation Effects on Asian Carp Movement Past Electric Barrier, Chicago Sanitary and Ship Canal, by D.B. Bryant, S.T. Maynord, H.E. Park, L. Coe, J. Smith, and R. Styles	AD1002484
ERDC/CHL TR-16-3	Mar 2016	Northeast Florida Regional Sediment Management: Implementation Strategies and Recommendations for Nassau County and Duval County, Florida, by K.C. Hodgens, M. Neves, and L.S. Lillycrop	AD1006971
ERDC/CHL TR-16-4	May 2016	Identifying Fossil Shell Resources via Geophysical Surveys: Chesapeake Bay Region, Virginia, by H.M. Wadman and J.E. McNinch	AD1008676
ERDC/CHL TR-16-5	Jun 2016	Hawaii Regional Sediment Management (RSM): Regional Sediment Budget for the West Maui Region, by J.H. Podoski, T.D. Smith, Z. Demirbilek, L. Lin, and L.S. Lillycrop	AD1011509
ERDC/CHL TR-16-6	Jun 2016	Seepage and Piping through Levees and Dikes Using 2D and 3D Modeling Codes, by HP. Cheng, S.M. England, and C.M. Murray	AD1011511
ERDC/CHL TR-16-7	Jun 2016	Rock Island Arsenal Power Dam: Numerical Hydraulic Model Investigation of Channel Capacity for Power Generation, by T.A. Dahl, M. Ramos-Villanueva, and R.E. Heath	AD1011514
ERDC/CHL TR-16-8	Jun 2016	Marine Transportation System Performance Measures Research, by M.M. Kress, K.N. Mitchell, P.K. DiJoseph, J.S. Rainey, M. Chambers, J. Hsieh, and W.J. Lillycrop	AD1011845

ERDC/CHL TR-16-9	Jun 2016	Assessment of Modifications for Improving Navigation at Hilo Harbor, Hawaii, by Z. Demirbilek, L. Lin, O.G. Nwogu, K.K. Hathaway, W.C. Butler, J.H. Podoski, and T.D. Smith	AD1012501
ERDC/CHL TR-16-10	Jul 2016	Evaluation Tests of Select Fuel Additives for Potential Use in U.S. Army Corps of Engineers Diesel Engines, by M. Tubman and T. Welp	AD1013242
ERDC/CHL TR-16-11	Jul 2016	Evaluation of Biodiesel Fuels to Reduce Fossil Fuel Use in Corps of Engineers Floating Plant Operations, by M. Tubman, T. Welp, R. Immel, and R. Leitch	AD1013241
ERDC/CHL TR-16-12	Jul 2016	Regional Sediment Management Strategies for the Vicinity of St. Augustine Inlet, St. Johns County, Florida, by M.H. Schrader, E.C. Douglass, and L.S. Lillycrop	AD1013205
ERDC/CHL TR-16-13	Jul 2016	Galveston Island, Texas, Sand Management Strategies, by A.E. Frey, A. Morang, and D.B. King	
ERDC/CHL TR-16-14	Aug 2016	Gridded Surface Subsurface Hydrologic Analysis Modeling for Analysis of Flood Design Features at the Picayune Strand Restoration Project, by C.W. Downer, J.A. Graulau-Santiago, B.E. Skahill, D.M. Weston, N. Pradhan, and A.R. Byrd	AD1013572
ERDC/CHL TR-16-15	Aug 2016	Historical Sediment Budget (1860s to Present) for the United States Shoreline of Lake Erie, by W. Cross, A. Morang, A.E. Frey, M.C. Mohr, S. Chader, and C.M. Forgette	AD1013574
ERDC/CHL TR-16-16	Aug 2016	Hydraulic Modeling of Lock Approaches, by S.K. Martin, M.J. Sanchez, and C.B. Bislip- Morales	AD1017928
ERDC/CHL TR-16-17	Nov 2016	Hydrodynamic Modeling for Channel and Shoreline Stabilization at Rhodes Point, Smith Island, Maryland, by Z. Demirbilek, L. Lin, T.D. Laczo, and A.A. Clark	

3 Cold Regions Research Engineering Laboratory (CRREL)

Letter reports

Report Number Date <u>Title</u> AD Number

ERDC/CRREL LR-16-1 Sep 2016 Standard Operating Procedure for Operation

of Unmanned Vehicle Systems, by D.C.

Finnegan

Miscellaneous papers

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CRREL MP-16-1	Sep 2016	Effect of Arctic Amplification on Design Snow Loads in Alaska: SERDP RC-2435, by K. Jones and S. Daly	AD1018835
ERDC/CRREL MP-16-2	Nov 2016	A Portable Burn Pan for the Disposal of Gun Propellants: Project ER-201323, by M.R. Walsh	

Special reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CRREL SR-16-1	May 2016	Review of Ice-Control Methods at Lock 8, Welland Canal, Port Colborne, Ontario, by R.B. Haehnel	AD1010217
ERDC/CRREL SR-16-2	Jun 2016	Economic Analysis of the Greenland Inland Traverse (GrIT), by J.H. Lever, G. Phillips, and J. Burnside	AD1010293
ERDC/CRREL SR-16-3	Jun 2016	Modeling Relevant to Safe Operations of U.S. Navy Vessels in Arctic Conditions: Physical Modeling of Ice Loads, by A.J. Song, J.H. Lever, and S.W. Bates	AD1010890
ERDC/CRREL SR-16-4	Jun 2016	Autonomous Sea-Ice Thickness Survey, by J.H. Lever	AD1012491
ERDC/CRREL SR-16-5	Dec 2016	Synthesizing the Scientific Foundation for Ordinary High Water Mark Delineation in Fluvial Systems, by E. Wohl, M.K. Mersel, A.O. Allen, K.M. Fritz, S.L. Kichefski, R.W. Lichvar, T. Nadeau, B.J. Topping, P.H. Trier, and F.B. Vanderbilt	

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CRREL TR-16-1	Feb 2016	The Benefits and Limitations of Hydraulic Modeling for Ordinary High Water Mark Delineation, by J.D. Gartner, M.K. Mersel, L.E. Lefebvre, and R.W. Lichvar	AD1003777
ERDC/CRREL TR-16-2	Feb 2016	Hydrologic Modeling and Flood Frequency Analysis for Ordinary High Water Mark Delineation, by J.D. Gartner, M.K. Mersel, and R.W. Lichvar	AD1003776
ERDC/CRREL TR-16-3	Feb 2016	Integrating Hydrologic Modeling, Hydraulic Modeling, and Field Data for Ordinary High Water Mark Delineation, by J.D. Gartner, R.W. Lichvar, M.K. Mersel, and L.E. Lefebvre	
ERDC/CRREL TR-16-4	Feb 2016	Advances in Antarctic Sled Technology, by J.H. Lever, J.C. Weale, T.U. Kaempfer, and M.J. Preston	
ERDC/CRREL TR-16-5	Apr 2016	Characterization of the Lake Erie Ice Cover, by S.F. Daly	
ERDC/CRREL TR-16-6	May 2016	Snow Drift Management: Summit Station Greenland, by R.B. Haehnel and M.F. Bigl	ADA631964
ERDC/CRREL TR-16-7	May 2016	Assessment of Asphalt Concrete Reinforcement Grid in Flexible Pavements, by L.A. Barna, C.E. Smith Jr., A. Bernier, A. Smart, and A.M. Scholz	ADA631961
ERDC/CRREL TR-16-8	Jun 2016	Robotic Ground-Penetrating-Radar (GPR) Surveys to Support the 2014 Greenland Inland Traverse, by J.H. Lever, Z.R. Courville, and D.A. Punt	AD1012493
ERDC/CRREL TR-16-9	Jul 2016	Summit Station Skiway Cost Analysis, by T.D. Melendy	
ERDC/CRREL TR-16-10	Aug 2016	Passive Gamma-Ray Emission for Soil- Disturbance Detection, by J.L. Clausen, T. Sobecki, A.L. Coplin, T.D. Melendy, and T. Arnold	
¹ERDC/CRREL TR-16-11	Aug 2016	Operational Transboundary Streamflow Assessments: Using the Land Information System and Satellite Altimetry to Model River Flows and Reservoir Operations in Northern Iraq, by J.M. Roningen and J.B. Eylander	AD1013581

¹ Limited distribution; see Preface.

ERDC/CRREL TR-16-12	Aug 2016	Evaluation of Electromagnetic Induction (EMI) Resistivity Technologies for Assessing Permafrost Geomorphologies, by B.E. Barrowes and T.A. Douglas	
ERDC/CRREL TR-16-13	Aug 2016	Image Analysis and Classification Based on Soil Strength, by A.M. Sopher, S.A. Shoop, J.M. Stanley, Jr., and B.T. Tracy	AD1014532
ERDC/CRREL TR-16-14	Aug 2016	Ground-Penetrating-Radar Profiles of Interior Alaska Highways: Interpretation of Stratified Fill, Frost Depths, Water Table, and Thaw Settlement over Ice-Rich Permafrost, by S.A. Arcone and K. Bjella	AD1014526
ERDC/CRREL TR-16-15	Sep 2016	Aviation Fuel Ignition and Burn Behavior in Antarctica, by J.C. Weale	
ERDC/CRREL TR-16-16	Dec 2016	Snow-Road Construction and Maintenance, by S. Shoop, J. Uberuaga, and W. Wieder	
ERDC/CRREL TR-16-17	Dec 2016	Tidal Energy Resource Assessment for McMurdo Station, Antarctica, by B.A. West, I.F. Gagnon, and M. Wosnik	

4 Construction Engineering Research Laboratory (CERL)

Contract reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CERL CR-16-1	Apr 2016	Matthew Jones House: Recommendations for Treatment, by E.G. FitzGerald	AD1010292
¹ ERDC/CERL CR-16-2	Aug 2016	SMART Energy Efficient Deployable Shelters (SEEDS): Option Year 1 Report, by A.H. Shaaban and S. Escobar	
ERDC/CERL CR-16-3	Aug 2016	Field Testing and Summary Report for Road 5 (Morris Road) Over Road 3 (Toftoy Throughway) at Redstone Arsenal, AL: Contractor's Supplemental Report for Project F09-AR16, by B. Commander and S. Aschermann	
ERDC/CERL CR-16-4	Sep 2016	Field Testing and Load Rating Report for Bridge No. 4, Composite Grid Reinforcement of Concrete Deck, at Fort Knox, Kentucky: Contractor's Supplemental Report for Project F12- ARO1, by B. Commander and B. Carpenter	
ERDC/CERL CR-16-5	Sep 2016	Field Testing and Load Rating Report for Bridge No. 4, Hybrid Composite Beam Span, at Fort Knox, Kentucky: Contractor's Supplemental Report for Project F12-AR15, by B. Commander and B. Carpenter	AD1020964
ERDC/CERL CR-16-6	Dec 2016	Investigation of Bending Test Procedures for Engineered Polymer Composite Railroad Ties, by C.G. Ball	

Miscellaneous papers

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CERL MP-16-1	Jun 2016	HAER Level II Documentation of Launch Complexes 1/2, 3/4, 9/10, 14, and 34 at Cape Canaveral Air Force Station, Florida, by S.I. Enscore and M.J. Stupich	ADA637019

¹ Limited distribution; see Preface.

Special reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CERL SR-16-1	Mar 2016	Black Swan Event Assessment for Fort Leonard Wood, Missouri, by G.M. Diaz- Estrada and J.D. Westervelt	AD1007652
ERDC/CERL SR-16-2	Mar 2016	Removing Hazardous Materials from Buildings: A Training Curriculum, by D.J. Schell, S.D. Cosper, S.A. Drozdz, T.R. Napier, and D.S. Gilbert	
¹ ERDC/CERL SR-16-3	May 2016	Extreme Environment Basing: Contingency Basing in Dense Urban and Megacity Environments, by D.A. Morrison, C.D. Wood, T.K. Perkins, and C.L. Baxter	
ERDC/CERL SR-16-3	May 2016 Rev. Nov 2016	Extreme Environment Basing: Contingency Basing in Dense Urban and Megacity Environments, by D.A. Morrison, C.D. Wood, T.K. Perkins, and C.L. Baxter	

Technical notes

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CERL TN-16-1	Feb 2016	Assessment of Small Arms Munitions Impacts on Natural Infrastructure in Sensitive Downrange areas on Military Installations, by D. Delaney, P. Guertin, M. White, and R. Fischer	AD1005458
ERDC/CERL TN-16-2	Mar 2016	Sustainability-related Publications Calendar Years 2014 - 2015, by F.H. Holcomb	AD1009027

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/CERL TR-16-1	Jan 2016	Demonstration of Combined Food and Landscape Waste Composting at Fort Leonard Wood, MO: Fort Leonard Wood Installation Strategic Sustainable Plan, by D. Gebhart, R. Busby, A. Stumpf, and S. Bevelheimer	AD1001865

¹ Limited distribution; see Preface.

ERDC/CERL TR-16-2	Feb 2016	Demonstration of a Robust Sensor System for Remote Condition Monitoring of Heat-Distribution System Manholes: Final Report on Project F09-AR03, by K. Palutke, S.M. Lux, C.P. Marsh, L. Clark, and G. Phetteplace	AD1005463
ERDC/CERL TR-16-3	Mar 2016	Evaluation of 757 Species Under U.S. Endangered Species Act Review on U.S. Department of Defense Lands and their Potential Impact on Army Training, by J.H. Sperry, W.A. Wall, and M.G. Hohmann	
ERDC/CERL TR-16-4	Mar 2016	Cultural Landscape Analysis of Existing Historic Districts: Picatinny Arsenal, New Jersey, by S.E. Adams, M.W. Tooker, and A.D. Smith	ADA637022
ERDC/CERL TR-16-5	Apr 2016	Demonstration of a Liquid-Applied Liner System for Corrosion Protection and Rehabilitation of Wastewater System Structures: Final Report on Project F11- AR24, by C. Wilson, S.A. Drozdz, J. Mathis, L. Clark, and C. Olaes	
ERDC/CERL TR-16-6	Jun 2016	Application of Maxent Multivariate Analysis to Define Reptile Species Distributions and Changes Related to Climate Change, by R.C. Lozar and J.D. Westervelt	AD1012035
ERDC/CERL TR-16-7	Jun 2016	Fort Leonard Wood Lake of the Ozarks Recreation Area, NRHP Section 110 Inventory and Evaluation, by S.E. Adams and A.D. Smith	
ERDC/CERL TR-16-8	Jul 2016	Character-Defining Features of Contributing Buildings and Structures in the Fort Gordon, Georgia, Signal School Campus Historic District, by S.E. Adams and A.D. Smith	ADA637431
ERDC/CERL TR-16-9	Jul 2016	Adaptation Strategies for Training Lands and Ranges at Fort Leonard Wood, MO, by D.L. Gebhart, R.R. Busby, A.M. Hamblin, A.L. Stumpf, and S.J. Bevelheimer	AD1023395
ERDC/CERL TR-16-10	Jul 2016	Corrosion Control of Central Vehicle Wash Facility Pump Components Using Alternative Alloy Coatings: Final Report on Project F09-AR14, by M.K. McInerney and R.B. Mason, Jr.	AD1012948

ERDC/CERL TR-16-11	Jul 2016	Architectural Survey of Laramie Armory, Wyoming Army National Guard, by A.D. Smith, M.W. Tooker, and S.E. Adams	AD1013569
ERDC/CERL TR-16-12	Aug 2016	NRHP Eligibility of the Fort Huachuca, Arizona, Elevated Water Tank (Facility 49001) and Reservoir (Facility 22020), by A.D. Smith and C.F. Wesa	AD1014076
ERDC/CERL TR-16-13	Aug 2016	Novel Anaerobic Wastewater Treatment System for Energy Generation at Forward Operating Bases: Final Report on Environmental Restoration Project ER- 2218, by K.A. Guy, M.A. Page, L. Schideman, and G. Botte	AD1030257
ERDC/CERL TR-16-14	Aug 2016	Construction Material-Based Methodology for Military Contingency Base Construction: Case Study of Dhaka, Bangladesh, by G.K. Al-Chaar, G.W. Calfas, M.A. Weiss, M.K. Valentino, and P.J. Guertin	AD1017929
ERDC/CERL TR-16-15	Aug 2016	Assessing Socioeconomic Impacts of Cascading Infrastructure Disruptions Using the Capability Approach, by Y. Wang, A. Tabandeh, P. Gardoni, T.M. Hurt, E.R. Hartman, and N.R. Myers	
ERDC/CERL TR-16-16	Aug 2016	Demonstration and Validation of a Lightweight Composite Bridge Deck Technology as an Alternative to Reinforced Concrete: Final Report on Project F09-AR16, by K. Palutke, R.G. Lampo, L. Clark, J. Wilcoski, R. Miles, and D. Skinner	AD1016971
ERDC/CERL TR-16-17	Aug 2016	Cultural Landscape Inventory for Picatinny Arsenal, New Jersey, by M.W. Tooker and A.D. Smith	AD1018838
ERDC/CERL TR-16-18		Never published	
ERDC/CERL TR-16-19	Sep 2016	Construction Material-Based Methodology for Military Contingency Base Construction: Case Study of Maiduguri, Nigeria, by P.J. Guertin, G.W. Calfas, M.K. Valentino, and G.K. Al-Chaar	AD1017930
ERDC/CERL TR-16-20	Sep 2016	Polarization Decay Fit for Assured Cathodic Protection of Steel Structures: Final Report on Project F12-ARO3, by T.A. Carlson, A.P. Friedl, C.P. Marsh, J.P. Miller, J.B. Bushman, R. Bushman, and B.S. Phull	

ERDC/CERL TR-16-21	Sep 2016	Demonstration and Validation of a Composite Grid Reinforcement System for Bridge Decks: Final Report on Project F12-ARO1, by S.C. Sweeney, R.G. Lampo, J. Wilcoski, C. Olaes, and L. Clark
ERDC/CERL TR-16-22	Sep 2016	Demonstration of Corrosion-Resistant Hybrid Composite Bridge Beams for Structural Applications: Final Report on Project F12-AR15, by S.C. Sweeney, R.G. Lampo, J. Wilcoski, C. Olaes, and L. Clark
ERDC/CERL TR-16-23	Dec 2016	Demonstration and Validation of Reactive Vitreous Coatings to Prevent Corrosion of Steel Fixtures Attached to Masonry Walls: Final Report on Project F10-AR12, by S.C. Sweeney, C. Olaes, and D. Skinner
ERDC/CERL TR-16-24		Never published
ERDC/CERL TR-16-25	Dec 2016	Demonstration of a Model-Based Technology for Monitoring Water Quality and Corrosion in Water-Distribution Systems: Final Report on Project F07- AR05, by V.L. Van Blaricum, K. Russell, and R. Broadwater
ERDC/CERL TR-16-26	Dec 2016	Determination of NRHP Eligibility for the Eisenhower Army Medical Center Complex at Fort Gordon, Georgia, by A.D. Smith and S.E. Adams
ERDC/CERL TR-16-27	Dec 2016	Demonstration and Validation of Two- Coat High-Performance Coating System for Steel Structures in Corrosive Environments: Final Report on Project F12-AR06, by B.A. Divan, R.G. Lampo, S.A. Drozdz, C. Olaes, and L. Clark
¹ ERDC/CERL TR-16-28	Nov 2016	Fort Leonard Wood Net Zero Water Program: Project Documentation for Fiscal Year 2015, by E.M. Jenicek, L. Curvey, M. Doherty, A. Hur, D. Thayer, A. Liu, H. Morsch, N. Garfinkle, S. Bevelheimer, and A. Stumpf

 $^{^{\}rm 1}$ Limited distribution; see Preface.

ERDC/CERL TR-16-29	Jan 2016	Effects of Climate Change, Urban Development, and Threatened and Endangered Species Management on Army Training Capabilities: Firing Ranges, by J. Wilhoit, S. Tweddale, M. Hohmann, D. Delaney, M.E. Swearingen, and J. Westervelt
ERDC/CERL TR-16-30	Apr 2016	Opportunities for Waste Heat Recovery at Contingency Bases, by C.T. Decker, A.C. Johannes, J.B. Alvey, B.C. Masters, S.M. Lux, M.A. Page, D. Chu, K.C. Smith, K.T. Wolf, and P. Roege
ERDC/CERL TR-16-31	Sep 2016	A Species Distribution Modeling Informed Conservation Assessment of Bog Spicebush, by M.G. Hohmann and W.A. Wall
ERDC/CERL TR-16-32	Sep 2016	Water Stress Projection Modeling, by J.M. Wilhoit, G.M. Díaz-Estrada, J.P. Miller, and J. Westervelt

5 Environmental Laboratory (EL)

Contract reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL CR-16-1	Apr 2016	Case Study Application of the Biodiversity Security Index to Ranking Feasibility Studies for Ecosystem Restoration Projects of the U.S. Army Corps of Engineers, by R.A. Cole	AD1007543
¹ ERDC/EL CR-16-2	Apr 2016	Modeling the Fate of Lead from Small Arms Firing Ranges, Fort Jackson, SC, by M.S. Dortch	
ERDC/EL CR-16-3	May 2016	California Least Tern Foraging Ecology in Southern California: A Review of Foraging Behavior Relative to Proposed Dredging Locations, by K. Keane and L.J. Smith	ADA631962
ERDC/EL CR-16-4	Jul 2016	Side Channels of the Impounded and Middle Mississippi River: Opportunities and Challenges to Maximize Restoration Potential, by J.M. Nestler, D.L. Galat, and R.A. Hrabik	AD1013224
ERDC/EL CR-16-5	Jul 2016	Complete Host Range Testing on Common Reed with Potential Biological Control Agents and Investigation into Biological Control for Flowering Rush, by P. Häfliger and H.L. Hinz	

Special reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL SR-16-1	May 2016	Nanomaterial Dispersion/Dissolution Characterization: Scientific Operating Procedure SOP-F-1, by L. Miller and M. Chappell	AD1010272
ERDC/EL SR-16-2	Jul 2016	Composition of CBRN Decontamination Effluent and Development of Surrogate Mixtures for Testing Effluent Treatment Technologies, by J.A. Brame, V.F. Medina, I. Smith, and L. Procell	AD1014928
ERDC/EL SR-16-3	Sep 2016	Surface Area Analysis Using the Brunauer- Emmett-Teller (BET) Method. Scientific Operating Procedure Series: SOP-C, by J. Brame and C. Griggs	AD1017934

¹ Limited distribution; see Preface.

Technical notes

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL TN-16-1	Apr 2016	CONUS Demonstration Site Selection for Surface water Characterization in Remote, Sparse-Data Environments: Calleguas Creek Watershed, Ventura County, California, by B.E. Johnson and D.L. Smith	
ERDC/EL-TN-16-2	May 2016	Technology Transfer of Biopolymer Soil Amendment for Rapid Revegetation and Erosion Control at Fort A. P. Hill, Virginia, by S. Larson, W.A. Martin, R. Wade, R. Hudson, and C. Nestler	ADA631946

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/EL TR-16-1	Feb 2016	Aquatic Nutrient Simulation Modules (NSMs) Developed for Hydrologic and Hydraulic Models, by Z. Zhang and B.E. Johnson	AD1002483
ERDC/EL TR-16-2	Feb 2016	Establishing Research and Management Priorities for Invasive Water Primroses (Ludwigia spp.), by B.J. Grewell, M.D. Netherland, and M.J. Skaer Thomason	AD1002917
ERDC/EL TR-16-3	Feb 2016	Testing of the KRIA Ionizing Water Treatment System for Waters Contaminated with Diesel, PCBs, and Nutrients (Nitrogen Forms), by V.F. Medina, A. Morrow, C.C. Thomas, and R. Wade	AD1002925
ERDC/EL TR-16-4	Mar 2016	Birds of the Savannah Harbor Navigation Project, Dredged Material Disposal Areas, 1994 – 2012, by J.S. Calver, M.P. Guilfoyle, R.A. Fischer, and E.L. Covington	AD1005454
ERDC/EL TR-16-5	Apr 2016	The Biodiversity Security Index: A New Metric for Benefits from USACE Ecosystem Restoration Projects, by R.A. Cole	
ERDC/EL TR-16-6	Jun 2016	Identifying Areas of Potential Wetland Hydrology in Irrigated Croplands Using Aerial Image Interpretation and Analysis of Rainfall Normality, by J.F. Berkowitz, J. Pietroski, and D. Krenz	AD1010291

ERDC/EL TR-16-7	Jun 2016	Flexible Reactive Berm (FRBerm) for Removal of Heavy Metals from Runoff Water: ESTCP ER-1213 Treatability Study, by S.L. Larson, W.A. Martin, M.S. Dortch, C.C. Thomas, C.S. Griggs, and C.C. Nestler	AD1011601
ERDC/EL TR-16-8	Jul 2016	Aquatic Contaminant and Mercury Simulation Modules Developed for Hydrologic and Hydraulic Models, by Z. Zhang and B.E. Johnson	AD1013220
ERDC/EL TR-16-9	Jul 2016	Dissolution Kinetics of IMX-101 and IMX-104; Operating Procedure Series: Characterization of IMX Dissolution, by C.J. McGrath, B. Porter, J.A. Brame, M.A. Chappell, and A. Russell	AD1013577
ERDC/EL TR-16-10	Jun 2016	Laboratory-Scale Demonstration Using Dilute Ammonia Gas-Induced Alkaline Hydrolysis of Soil Contaminants (Chlorinated Propanes and Explosives), by V.F. Medina, S.A. Waisner, C. Coyle, C. Griggs, and M. Maxwell	AD1012494
ERDC/EL TR-16-11	Jul 2016	Testing and Validation Studies of the NSMII- Benthic Sediment Diagenesis Module, by Z. Zhang and B.E. Johnson	AD1012495

6 Geotechnical and Structures Laboratory (GSL)

Special reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
¹ERDC/GSL SR-16-1	Jun 2016	M3A1, 40-lb Shaped Charge with Jet Disruptor Evaluation, by J.T. Carrillo, S.E. Robert, J.E. Osorio, C.A. Barela, R.E. Ellison, N.A. Hoben, and D.M. Marshall	

Technical notes

Report Number	<u>Date</u>	<u>Title</u>	
ERDC/GSL TN-16-1	Mar 2016	Predicting Soil Strength in Terms of Cone Index and California Bearing Ratio for Trafficability, by G.L. Mason and E.A. Baylot	AD1006483
¹ ERDC/GSL TN-16-2	Mar 2016	Estimating Beach Soil Strength Using a Sand Sinkage ATV Attachment (S2A2), by G.L. Mason, B.Q. Gates, and M.T. Stevens	
¹ ERDC/GSL TN-16-3	Nov 2016	Sensitivity Analysis of NIR Cameras used in Autonomous Convoys, by J.T. Carrillo, C.T. Goodin, and A.E. Baylot	

Report Number	<u>Date</u>	<u>Title</u>	AD Number
¹ ERDC/GSL TR-16-1	Jan 2016	Impulse Load Response of Lattice Steel Columns, by A. Noriega and C.K. Crane	
¹ ERDC/GSL TR-16-2	Jan 2016	Comparisons of Results from Experiments and Simulations with the Impulse Measuring Device that Quantify Effects of Charge Parameters, Depth of Burial, and Soil Type on Aboveground Impulse, by T.N. Williams, S.A. Akers, K.T. Danielson, and G.K. Doles	
¹ERDC/GSL TR-16-3	Feb 2016	Birds Point-New Madrid Floodway alternate Explosive Breaching System, by M.J. Roth, C.W. Ertle, II, R.N. Boone, D.C. Guynes, A.J. Jackson, R.E. Magee, and D.V. Senior	AD1006466

¹ Limited distribution; see Preface.

¹ ERDC/GSL TR-16-4	Feb 2016	DBA-105P Re-development, Explosive Property Index Testing, by D.V. Senior, M.J. Roth, D.C. Guynes, B.W. Bullock, and T.A. Carriveau	
¹ ERDC/GSL TR-16-5	Mar 2016	M3A1, 40-lb. Shaped Charge Penetration Evaluations, by S.E. Robert, J.E. Osorio, J.T. Carrillo, R.D. Ellison, C.A. Barela, J.P. Toth, J.W. Hall, and D.M. Marshall	
¹ ERDC/GSL TR-16-6	Mar 2016	Course-of-Action (COA) Study on the Large Blast Thermal Simulator (LBTS) for Nuclear Weapons Effects, by J.L. O'Daniel, F.D. Dallriva, B.P. Durst, and G.W. McMahon	ADB412514
ERDC/GSL TR-16-7	Mar 2016	The Influences of Geologic Depositional Environments on Sand Boil Development, Tara Wildlife Lodge Area in Mississippi, by R.C. Strange, M.K. Corcoran, J.B. Dunbar, and D. Schmitz	AD1006973
¹ ERDC/GSL TR-16-8	Apr 2016	Development of Penetration Resistance Functions for High-Strength Concrete, by M.D. Adley	
¹ ERDC/GSL TR-16-9	Apr 2016	Cutting Algorithms - Thermal, Linear Shaped Charge and Mechanical: A Module for Anti- Terrorism Planner for Bridges (ATP-B), by C.K. Crane, V.P. Chiarito, J.M.H. Puryear, D.J. Stevens, B.T. Bewick, E.B. Williamson, and E.L. Sammarco	
¹ ERDC/GSL TR-16-10	May 2016	DBA-105P Re-development, Explosive Property Testing with Indian Head Oxidizer: 50-Liter Scale, by D.V. Senior, M.J. Roth, B.W. Bullock, T.A. Carriveau, S.L. Garlington, D.C. Guynes, and A.J. Jackson	
ERDC/GSL TR-16-11	May 2016	Protocol for Cohesionless Sample Preparation for Physical Experimentation, by O.S. Taylor, W.W. Berry, K.E. Winters, W.R. Rowland, M.D. Antwine, and A.L. Cunningham	
¹ ERDC/GSL TR-16-12	May 2016	Development of Damage Algorithm for Bridge Cables Subjected to Explosive Threats: A Module for Anti-Terrorism Planner for Bridges (ATP-B), by C.K. Crane, V.P. Chiarito, M. Barsotti, J.M.H. Puryear, D.J. Stevens, E.B. Williamson, and E.L. Sammarco	AD1015686
ERDC/GSL TR-16-13	Jun 2016	Flatliner Cold Planer Evaluation for Airfield Pavement Maintenance, by J.F. Rushing, A.J. Falls, and C.A. Rutland	

 $^{^{\}rm 1}$ Limited distribution; see Preface.

¹ ERDC/GSL TR-16-14	Jul 2016	Near-Field Airblast Characterization of TATP and HMTD, by G. Emmanuelli, G.C. Bessette, T.S. Oesch, and S.T. Hardesty	
ERDC/GSL TR-16-15	Jun 2016	Full-Scale Instrumented Evaluations of Multiple Airfield Matting Systems on Soft Soil to Characterize Permanent Deformation, by L. Garcia	AD1012038
¹ ERDC/GSL TR-16-16	Jul 2016	Aberdeen Test Center Engineered Roadway Soil: Laboratory Characterization and Material Property Prediction Methodology, by S.A. Akers, S.S. Graham, K.J. Ratliff, M.D. Adley, T.N. Williams, and K.T. Danielson	AD1015658
¹ ERDC/GSL TR-16-17	Jul 2016	Development of Cor-Tuf 2.0 : Reestablishing a Baseline Research Grade Ultra-High Performance Concrete, by J.F. Burroughs, T.S. Rushing, D.S. Scott, and B.A. Williams	
¹ ERDC/GSL TR-16-18	Jul 2016	Close-in Airblast (CAB) Software Package, by J.R. Britt, D.W. Hyde, G. Emmanuelli, R.J. Moral, A.O. Frank, M.C. Edwards, and G.C. Bessette	
¹ ERDC/GSL TR-16-19	Aug 2016	Dynamic and Static Testing of a 120mm Mortar Threat: Desert Cobra IV Final Report of Department of State Targets, by J.M. Hoemann, J.B. Jordan, C.B. Blount, and J.M. Roberts	
ERDC/GSL TR-16-20	Aug 2016	Evaluation of the Structural Performance of CTS Rapid Set Concrete Mix®, by L.P. Priddy, H.P. Bell, L. Edwards, W.D. Carruth, and J.F. Rowland	AD1013578
¹ ERDC/GSL TR-16-21	Aug 2016	Suite of Sub- and Full-Scale Underbody Blast Experiments in Characterized Backfills for Code Validation, by T.N. Williams, G.K. Doles, J.Q. Ehrgott, Jr., J.E. Windham, S.A. Akers, K.T. Danielson, S.S. Graham, and K.J. Ratliff	
ERDC/GSL TR-16-22	Aug 2016	Validation of FRP Matting Requirements, by J.F. Rushing, W.C. Floyd, T.W. Rushing, L. Garcia, W.D. Carruth, J.S. Tingle, and C.A. Rutland	AD1013576
¹ ERDC/GSL TR-16-23	Aug 2016	HRB Soil Model Implementation into the CTH Hydrocode: Dry Sand and Wet Clay Calibration to IMD Experiments, by A.O. Andreas and J.Q. Ehrgott, Jr.	

 $^{^{\}rm 1}$ Limited distribution; see Preface.

¹ ERDC/GSL TR-16-24	Aug 2016	Long Standoff Research for RPG Mitigation - Series 2: Weapons Effects Research, by J.B. Jordan, J.S. Judson, and T.A. Carriveau
¹ ERDC/GSL TR-16-25	Aug 2016	Development of an Air-Droppable Airfield Damage Repair Kit, by T.W. Rushing, W.C. Floyd, L. Garcia, and Q.S. Mason
¹ ERDC/GSL TR-16-26 Version 1	Aug 2016	Performance of Modular Guard Tower Systems (MGTS) against VBIED and PBIED Threats: Version 1 Experimental Evaluation, by J.M. Hoemann, C.B. Blount, J.M. Roberts, and C.R. Ackerman
¹ ERDC/GSL TR-16-26 Version 2	Aug 2016	Performance of Modular Guard Tower System 2 (MGTS2) against VBIED and PBIED Threats: Version 2 Experimental Evaluation of Design Upgrades, by C.B. Blount, J.M. Hoemann, J.M. Roberts, and C.R. Ackerman
ERDC/GSL TR-16-27 Rpt. 1	Aug 2016	Blast Load Simulator Experiments for Computational Model Validation: Report 1, by F.D. Dallriva, C.F. Johnson, J.L. O'Daniel, and C.C. Dorrell
ERDC/GSL TR-16-28	Nov 2016	Validation Testing of Non-Nuclear Alternatives to Measuring Soil Density, by E.S. Berney IV, M. Mejías-Santiago, and M.D. Norris
ERDC/GSL TR-16-29	Nov 2016	Defining Efficient Stress Transfer in Binary Particle Systems Using Numerical Simulation, by J.R. Griffin, E.S. Berney IV, H.P. Bell, and D.A. Daily
ERDC/GSL TR-16-30	Nov 2016	Material Handling Equipment Evaluation for Crater Repair, by W.J. Robinson, J.S. Tingle, and C.A. Rutland
ERDC/GSL TR-16-31 Rpt. 1	Nov 2016	Modeling the Blast Load Simulator Airblast Environment Using First Principles Codes. Report 1, Blast Load Simulator Environment, by G.C. Bessette, J.L. O'Daniel, S.A. Akers, A.A. Armstrong, G. Emmanuelli, C. Mord, and R.A. Weed
¹ ERDC/GSL TR-16-32	Nov 2016	Evaluation of the Army Light Airfield Repair Package (LARP) Contents, by J.F. Rushing, W.C. Floyd, D.E. Harder, T.W. Rushing, W.D. Carruth, G.E. Johnston, and J.C. Ray
ERDC/GSL TR-16-33	Nov 2016	Evaluation of Flowable Fill Surface Performance, by W.D. Carruth and I.L. Howard

 $^{^{\}rm 1}$ Limited distribution; see Preface.

ERDC/GSL TR-16-34 Dec 2016 AM2 Brickwork Pattern Evaluation, by L. Garcia, J. Fisher, T.W. Rushing, and J.S. Tingle

1ERDC/GSL TR-16-35 Dec 2016 Assessment and Upgrades of Contingency Based Structures against Fragmentation Warheads, by J.B. Jordan, J.M. Hoemann, W.J. McCleave, and J.M. Roberts

¹ERDC/GSL TR-16-36 Dec 2016 Experimental Validation of Weathered Laminate Glazing, by J.M. Hoemann, C.B.

Blount, J.B. Jordan, J.S. Judson, and C.R.

Ackerman

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¹ Limited distribution; see Preface.

7 Information Technology Laboratory (ITL)

Special reports

Report Number	<u>Date</u>	<u>Title</u>	AD Number
¹ ERDC/ITL SR-16-1	Feb 2016	One-Stop Assessment of Building 611 at Yuma Proving Ground, Yuma, Arizona, by G.A. Riveros	
¹ ERDC/ITL SR-16-2	Feb 2016	One-Stop Assessment of Building 231 at Detroit Arsenal, Warren, Michigan, by G.A. Riveros	
¹ ERDC/ITL SR-16-3	Feb 2016	One-Stop Assessment of Building 1001 at Yuma Proving Ground, Yuma, Arizona, by G.A. Riveros and D. Dixon	
¹ ERDC/ITL SR-16-4	Feb 2016	One-Stop Assessment of the Multi-Level Automobile Parking Structure (Building 26) at Joint Base Myers - Henderson Hall (JBH-HH), Arlington, Virginia, by G.A. Riveros	
¹ ERDC/ITL SR-16-5	Feb 2016	One-Stop Assessment of the Propane Life Fire Training Facility at Fort Leonard Wood, Fort Leonard Wood, Missouri, by G.A. Riveros	
¹ ERDC/ITL SR-16-6	Feb 2016	One-Stop Assessment of Treadwell Tower at Fort Sill, Lawton, Oklahoma, by G.A. Riveros	
¹ ERDC/ITL SR-16-7	Feb 2016	One-Stop Assessment of the Combat Conditioning Course at Fort Sill, Lawton, Oklahoma, by G.A. Riveros	
¹ ERDC/ITL SR-16-8	Feb 2016	One-Stop Assessment of Hangar 3075 at Joint Base Lewis-McChord (JBLM), Tacoma, Washington, by G.A. Riveros	
¹ ERDC/ITL SR-16-9	Feb 2016	One-Stop Assessment of Building 404 at Joint Base Myer-Henderson Hall (JBM-HH), Arlington, Virginia, by G.A. Riveros	
¹ ERDC/ITL SR-16-10	Feb 2016	One-Stop Assessment of Greely Hall at Fort Gordon, Fort Gordon, Georgia, by G.A. Riveros and D. Dixon	
¹ ERDC/ITL SR-16-11	Feb 2016	One-Stop Assessment of Combat (Confidence) Obstacle Courses at Fort Sill, Lawton, Oklahoma, by G.A. Riveros	
¹ ERDC/ITL SR-16-12	Apr 2012	One-Stop Assessment of Building 11, Day Care Center, Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros	

¹ Limited distribution; see Preface.

¹ ERDC/ITL SR-16-13	Apr 2016	One-Stop Assessment of Building 9213 at Fort Hood in Killeen, Texas, by G.A. Riveros
¹ ERDC/ITL SR-16-14	Apr 2016	One-Stop Assessment of Building 393 at the U.S. Army Aberdeen Proving Ground, Aberdeen, Maryland, by G.A. Riveros
¹ ERDC/ITL SR-16-15	Apr 2016	One-Stop Assessment of Building 009, Water Pumping Station, Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-16	Apr 2016	One-Stop Assessment of the Mechanics Room for the Elevator, Building 302, Fort Hamilton, Brooklyn, New York, by G.A. Riveros
¹ ERDC/ITL SR-16-17	Apr 2016	One-Stop Assessment of the 500 Seat Theater, Building 403, at Fort Hamilton, Brooklyn, New York, by G.A. Riveros
¹ ERDC/ITL SR-16-18	May 2016	One-Stop Assessment of Building 160, Hydro Power Plant, at Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-19	May 2016	One-Stop Assessment of Building 225, Fire Station 3309, Rock Island Arsenal, at Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-20	May 2016	One-Stop Assessment of Building 14 at the U.S. Army Natick Soldier Research, Development and Engineering Center (NSRDEC), Natick, Massachusetts, by G.A. Riveros
¹ ERDC/ITL SR-16-21	Jun 2016	One-Stop Assessment of Building 208, Overhaul and Assembly Shop, at Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-22	Jun 2016	One-Stop Assessment of Building 200 at Fort Armstrong, Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-23	Oct 2016	One-Stop Assessment of Building 321, Auxiliary Police Station, Rock Island Arsenal, at Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-24	Oct 2016	One-Stop Assessment of Building 333, Post Exchange (PX) Main Retail Store and Warehouse, at Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-25	Oct 2016	One-Stop Assessment of Building 332, General Purpose Warehouse, Rock Island Arsenal, at Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-26	Oct 2016	One-Stop Assessment of Building 52, Storehouse, at Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros

 $^{^{\}rm 1}$ Limited distribution; see Preface.

¹ ERDC/ITL SR-16-27	Oct 2016	One-Stop Assessment of Building 337, General Purpose Warehouse, at Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-28	Oct 2016	One-Stop Assessment of Building 334, Commissary, at Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-29	Oct 2016	One-Stop Assessment of Building 164, Salt Storehouse, Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-30	Oct 2016	One-Stop Assessment of Building 331, General Purpose Warehouse, Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
¹ ERDC/ITL SR-16-31	Oct 2016	One-Stop Assessment of Building 339,General Purpose Warehouse, at Rock Island Arsenal, Rock Island, Illinois, by G.A. Riveros
ERDC/ITL SR-16-32	Dec 2016	Open Source Software Compliance within the Government: Open Source Software Compliance Policy, by L.A. Eckert

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/ITL TR-16-1	Jun 2016	Simplified Dynamic Structural Time-History Response Analysis of Flexible Approach Walls Founded on Clustered Pile Groups Using Impact_Deck, by B.C. White, J.R. Arroyo, and R.M. Ebeling	AD1014538
ERDC/ITL TR-16-2	Jun 2016	Causes of Pretension Loss in High-Strength Bolts, by H.N. Mahmoud, S.R. Lopez, and G.A. Riveros	
ERDC/ITL TR-16-3	Jul 2016	Analysis of a Floodplain I-Wall Embedded in Horizontally Stratified Soil Layers During Flood Events Using Corps_I-Wall Software Version 1.0, by R.M. Ebeling, M.T. Fong, and B.C. White	AD1012945
ERDC/ITL TR-16-4	Dec 2016	Corrosion Induced Loss of Capacity of Post- Tensioned Seven Wire Strand Cable Used in Multistrand Anchor Systems Installed at Corps Projects, by R.M. Ebeling, B.C. White, J.A. Evans, R.W. Haskins, and E.L. Miller	
ERDC/ITL TR-16-5	Nov 2016	Characterizing Axial Stiffness of Individual Batter Piles with Emphasis on Elevated, Laterally Loaded, Clustered Pile Groups, by R.M. Ebeling and B.C. White	

¹ Limited distribution; see Preface.

8 Aquatic Nuisance Species Research Program (ANSRP)

Technical notes

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN ANSRP-16-1	Aug 2016	Swimming Performance of Adult Asian Carp: Field Assessment Using a Mobile Swim Tunnel, by J.J. Hoover, J.A. Collins, A.W. Katzenmeyer, and K.J. Killgore	AD1018836
ERDC/TN ANSRP-16-2	Sep 2016	Estimating Burst Swim Speeds and Jumping Characteristics of Silver Carp (Hypophthalmichthys molitrix) Using Video Analyses and Principles of Projectile Physics, by G.R. Parsons, E. Stell, and J.J. Hoover	AD1018836

9 Aquatic Plant Control Research Program (APCRP)

Technical notes

Biological control

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN APCRP-BC-37	Apr 2016	Screening of Pathogenic Agents for Efficacy on Monoecious Hydrilla 2015, by J.F. Shearer	
ERDC/TN APCRP-BC-38	Jun 2016	Surveys for Pathogens on Monoecious Hydrilla 2014, by J.F. Shearer	AD1010290

Chemical control

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN APCRP-CC-20	Jan 2016	Phragmites Management at Times Beach, Buffalo, New York, by L.M. Glomski, J.F. Shearer, G.O. Dick, K. Erickson, and P. Fuhrmann	AD1001860
ERDC/TN APCRP-CC-21	Jul 2016	Evaluation of Topramezone and Benzobicyclon for Activity on Giant Salvinia, by C.R. Mudge	AD1013225

AD1018837

10 Dredging Operations and Environmental Research Program (DOER)

Technical notes

Environmental resource protection

Report Number Date Title AD Number

ERDC/TN DOER-E39 Nov 2016 Characterizing Seagrass Exposure to Light

Attenuation and Turbidity Associated with Dredging Activity in the Gulf Intracoastal Waterway, Sarasota Bay, Florida, by D. Shafer, C. Maglio, K. McConnell, T. Beck, and C.

Pollock

Risk

Report Number Date Title AD Number

ERDC/TN DOER-R24 Sep 2016 Dredged Material Evaluations: Review of

Zooplankton Toxicity Test Methods for Marine Water Quality Evaluations, by A.J. Kennedy, G.

Lotufo, J.G. Laird, and J.D. Farrar

Dredging technologies

Report Number Date Title AD Number

ERDC/TN DOER-T12 May 2016 Evaluation of Channel Infill Processes in AD1010294

Relation to Forcing Data, by L. Cole and A. Frey

11 Dredging Operations Technical Support Program (DOTS)

Technical notes

Report Number Date Title AD Number

ERDC/TN DOTS-16-1 Aug 2016 Understanding, Classifying, and Selecting

Environmentally Acceptable Hydraulic Fluids, by T.J. Keyser, R.N. Samuel, and T.L. Welp

12 Ecosystem Management and Restoration Research Program (EMRRP)

Technical notes

Ecosystem restoration (ER)

Report NumberDateTitleAD NumberERDC/TN EMRRP-ER-21Jul 2016Russian Olive Biology, Invasion, and EcologicalAD1013227

Impacts in Western North America, by ${\sf G.}$ Katz

Species information (SI)

Report Number Date Title AD Number

ERDC/TN EMRRP-SI-36 Aug 2016 Review of Invasive Riparian Trees that Impact

USACE Ecosystem Restoration Projects, by M.P.

Guilfoyle and R.A. Fischer

Stream restoration (SR)

Report NumberDateTitleAD NumberERDC/TN EMRRP-SR-48Feb 2016Rapid Hydraulic Assessment for Stream
Restoration, by S.K. McKay and J.C. FischenichAD1002926ERDC/TN EMRRP-SR-49Feb 2016Development and Application of Flow Duration
Curves for Stream Restoration, by S.K. McKay
and J.C. FischenichAD1002924

13 Engineering with Nature Program (EWN)

Technical notes

Report Number Date Title AD Number

ERDC/TN EWN-16-1 May 2016 Ashtabula Breakwater Common Tern (Sterna ADA631960

Hirundo) Nesting, by T.J. Fredette, R.J. Ruby, P.

 $\label{eq:Bijhouwer} \mbox{Bijhouwer, B.C. Suedel, M. Guilfoyle, M.}$

Kromer, and K. Adair

14 Environmental Quality Technology Program (EQT)

Technical notes

Report Number	<u>Date</u>	<u>Title</u>	AD Number
ERDC/TN EQT-16-1	Jan 2016	Proof of Principle for Electronic Collimation of a Gamma Ray Detector, by J. Furey, C. Morgan, and A. Davis	AD1002482
ERDC/TN EQT-16-2	Aug 2016	Verification and Evaluation of Aquatic Contaminant Simulation Module (CSM), by Z. Zhang and B.E. Johnson	AD1014913
ERDC/TN EQT-16-3	Dec 2016	Re-evaluation Application of the Training Range Environmental Evaluation and Characterization System (TREECS™) to Small Arms Firing Ranges, Fort Leonard Wood, MO, by M.S. Dortch	

15 Water Quality Research Program (WQRP)

Technical notes

Report Number Date Title AD Number

ERDC WQTN-16-1 Oct 2016 Riparian Buffers for Runoff Control and

Sensitive Species Habitat on U.S. Army Corps of Engineers Lake and Reservoir Projects, by

V.F. Medina, R. Fischer, and C. Ruiz

16 Miscellaneous Publications

<u>Date</u> <u>Publication</u>

Mar 2016 Proceedings from the U.S. Army Corps of Engineers (USACE) and the

National Oceanic and Atmospheric Administration (NOAA) Natural and Nature-Based Features Workshop, by T.S. Bridges, C.J. Banks, and J.K.

King

REPORT DOCUMENTATION PAGE

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14. ABSTRACT

Publications issued January through December 2016 by the U.S. Army Engineer Research and Development Center (ERDC) are listed. The publications are grouped according to the technical laboratories or technical program for which they were prepared. Procedures for obtaining ERDC reports are included in the Preface.

15. SUBJECT TERMS

Civil engineering-bibliography

Civil engineering -- Cold weather conditions-bibliography

Civil engineering – Design and construction-bibliography

Coastal engineering-bibliography

Engineer Research and Development Center (U.S.) - Bibliography

Environmental engineering-bibliography Geotechnical engineering-bibliography Government publications – United States Hydraulic engineering-bibliography Information technology-bibliography Military engineering-bibliography

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